

REMARKS

In response to the Office action identified above, please accept the following remarks.

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Examiner:

Claim 10 is rejected under U.S.C 102(e) as being anticipated by Koyama US 6,380,007. Claims 1-7, 9-17 and 19 are rejected under U.S.C 103(a) as being
10 unpatentable over Koyama as applied to claim 10 above, and further in view of Applicant's Admitted Prior Art (AARA). Claims 8 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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1. Response to the rejection over claim 10 under 35 U.S.C 102(e):

First, claim 10 is amended based on the present application. No new matter is included.

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Second, Applicant intends to point out the difference between the amended claim 10 of the present application and Koyama's disclosure. The amended claim 10 of the present application is repeated in the following:

25 "10.(Currently amended) A method for making a microdisplay pixel cell, the method comprising:

providing a semiconductor substrate defined with a plurality of active areas;

30 forming two gates on the semiconductor substrate and the two gates covering a portion of the active area;

forming four sources and two drains in the active area not covered

by the two gates;

forming a first dielectric layer on the semiconductor substrate to cover the two gates, the four sources, and two drains;

forming four pixel cap top plates atop the first dielectric layer;

5 forming a capacitor dielectric layer atop the surface of the four top plates; and

forming one pixel cap bottom plate atop the first dielectric layer and covering the four top plates.”

10 As disclosed in the amended claim 10 the present application, there are two obvious differences between Koyama's disclosure and the present application. In the present application, each of the pixel cell 100 (the pixel cell 100 in Fig.8) constitutes a transistor block 108, four sources 215, two drains 216, and a pixel capacitor, including four pixel cap top
15 plates 110 and one pixel cap bottom plate 112, disposed atop the transistor block 108.

According to Koyama's disclosure, a pixel TFTs 406 of a pixel section 401 are n-channel type TFTs, and have a semiconductor layer
20 501 bent into a U-shape. The scanning line 502, which is a first layer wiring. Sandwiches a gate insulation film 510 and intersects the semiconductor layer 501. N⁺ type regions 511-513, two channel forming regions 514 and 515, and low impurity concentration regions (n⁻ type regions) 516 to 519 are formed in the semiconductor layers 501. The n⁺
25 type regions 511 and 512 are source regions and drain regions.

From the above discussion, the Applicant believes that the amended claim 10 of the present application is absolutely different from the Koyama's disclosure. Reconsideration of the rejection over claim 10 is
30 hereby requested.

2. Response to the rejection over claim 1-7, 9-17 and 19 under 35 U.S.C 103(a):

First, claim 1 is amended based on the present application. No new matter is included.

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Second, Applicant intends to point out the difference between the amended claim1 of the present application and the combination of the applicant's prior art figure and Koyama's disclosure. The amended claim 1 of the present application is repeated in the following:

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"1. A method for making a microdisplay pixel cell, the method comprising:

providing a semiconductor substrate defined with a plurality of active areas;

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forming a gate oxide layer and a gate conductive layer sequentially on the semiconductor substrate;

performing a photo-etching-process(PEP) to the gate conductive layer to form **two gates** on the semiconductor substrate and the each gate covering a portion of the active area;

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forming **four sources and two drains** in the active area not covered by the **two gates**;

forming a first dielectric layer on the semiconductor substrate to cover the **each gates**, the **four sources**, and the **two drains**;

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forming at least one row select contact plug in the first dielectric layer to electrically connect to the **two gates**;

forming at least one row select line atop the first dielectric layer, the row select line being electrically connected to the **two gates** through the row select contact plug;

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forming a second dielectric layer atop the first dielectric layer and covering the row select line;

forming **four pixel cap top plates** atop the second dielectric layer;

forming a capacitor dielectric layer atop the surface of the top plate;

and

forming one pixel cap bottom plate atop the second dielectric layer and covering the four top plates.”

5 As disclosed in the amended claim 1 the present application, there are two obvious differences between Koyama's disclosure and the present application. In the present application, each of the pixel cell 100 (the pixel cell 100 in Fig.8) constitutes a transistor block 108 and a pixel capacitor, including four pixel cap top plates 110 and one pixel cap
10 bottom plate 112, disposed atop the transistor block 108.

According to applicant's prior art disclosure, please refer to Fig.1 of a layout of the prior art LCOS display pixel cell 10. The prior art LCOS display pixel cell 10 constitutes a transistor block 18, two pixel
15 cap top plates 20 and one pixel cap bottom plate 22 disposed at either side of the transistor block 18. The pixel cap top plates 20 and the pixel cap bottom plate 22 form a pixel capacitor.

From the above discussion, the Applicant believes that the amended
20 claim 1 of the present application is absolutely different from the combination of the applicant's prior art figure and Koyama's disclosure. Reconsideration of the rejection over claim 1 is hereby requested.

3. Response to the rejection over claim 2-7, 9-17 and 19 under 35 U.S.C 103(a):

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Claims 2-7 and 9 are dependent upon the amended claim 1, they should be allowed if the amended claim 1 is allowed. Claims 11-17 and 19 are dependent upon the amended claim 10, they should be allowed if the amended claim 10 is allowed. Reconsideration of the rejections of
30 claims 2-7,9,11-17, and 19 is therefore requested.

Sincerely yours,

Winston Hsu Date: 8/18/2004

5 Winston Hsu, Patent Agent No.41,526

P.O. BOX 506

Merrifield, VA 22116

U.S.A.

e-mail: winstonhsu@naipo.com.tw

10 (Please contact me by e-mail if you need a telephone communication and I will return your call promptly)